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Investment Newsletter – March 2023

Executive Summary

Three banks imploded this month, exposing the hidden effects of the Federal Reserve Bank's gyrating interest rate policies. This has caused value declines for holdings of bank securities in our Long Term Income portfolio which will likely reverse (mostly). The Fed itself has incurred far more losses than the entire banking sector combined. The Fed faces a choice of letting inflation run its course or engineering a recession. The former is more likely, but a recession is also very possible.

The Short Term Income portfolio suffered the effects of rapidly rising interest rates and credit spreads, raising its forward yield to 8.9%.

The Federal Reserve Breaks the Bank (with the help of accounting rules and online banking)

We are now witnessing the 2^{nd} phase of consequences resulting from the Pandemic inspired experiment in handing out free money while shutting down production of goods and services. The 1^{st} phase was the rapid increase in inflation that this newsletter predicted in June 2020. The 2^{nd} phase is the impact on banking and the economy of the belated interest rate increases the Federal Reserve is using to try to reduce inflation.

Some of the banking problems can also be traced back to the last financial crisis in 2009. In March 2009 the regulators decreed that banks should no longer account for their assets at market value. They did this so that everyone could close their eyes to the fact that many banks had liabilities greater than their assets (i.e. they were insolvent). Then in 2010 they passed a law (they described as banking reform) that effectively said government bonds had no risk and banks could hold unlimited amounts without regard to interest rate risk and with no impact on capital requirements.

Many banks, such as Silicon Valley Bank, responded to these incentives by taking on huge interest rate risk. As Silicon Valley Bank demonstrated, we can expect bank failures when three conditions are met:

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- 1. The bank's liabilities exceed the market value of its assets so that the Fed cannot legally lend enough to redeem all deposits.
- 2. The bank has a large proportion of depositors that risk losing money in a failure because their deposits exceed the FDIC limits.
- 3. The public becomes aware of the situation and uninsured depositors rush to move their money out.

Consequently, this month we've had two bank failures and the Swiss government wiped out a class of bond holders of Credit Suisse bank in the forced merger with United Bank of Switzerland. The U.S. banks that failed, had unusually incompetent managers. Apparently accounting and regulatory rules led them to ignore market value losses in the portfolio of government backed securities. Similarly large unrecognized losses are present in a large part of the banking system. According to the Federal Deposit Insurance Corporation (FDIC), banks were sitting on \$620.4 billion of unrealized losses at the end of 2022.

In the long run banks can earn this money back, just as they did after their losses in 2009. But some of them may not get the chance. This is because depositors with more than the insured amount (\$250,000 per person) risk losing money in a failure. As mentioned previously, the 2009 accounting change was aimed at hiding problems so as to keep the public from withdrawing deposits from banks with negative value. This bought time for the banks to earn their way back to health by paying 0% on deposits. Unfortunately for Silicon Valley Bank, they had to sell securities at a loss as their money losing startup clients ran down their account balances. When they announced their losses, the public suddenly realized what had previously been obscured by the accounting rules.

Silicon Valley Bank lost \$40 billion of deposits on March 9th and by early March 10th customers had requested to withdraw another \$100 billion. Signature bank suffered the same fate. The result is that folks are taking a closer look and realizing many other banks also meet conditions 1 and 2. According to an analysis of FDIC data by the Wall Street Journal, uninsured deposits at U.S. banks totaled almost \$8 trillion at the end of 2022. That is up by 41% from 2019. In this age of social media and online banking, these uninsured deposits are a source of instability for banks perceived to have problems.

Like Silicon Valley Bank, First Republic Bank also has insufficient asset value to cover all deposits. Hence we see at-risk deposits moving out of First Republic Bank and many other similarly situated banks. The Federal Reserve Bank and a consortium of major banks has so far lent First Republic enough money to avoid failure. This could save First Republic, or it might just delay a failure.

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More "Fixes" and Consequences

The Federal Reserve Bank has instituted a new policy of lending money to such banks based on the value of bonds at maturity rather than current value¹. This reduces the number of banks meeting condition #1 above. The effect will be to buy time, but it does not change the fact of the unrealized losses. It also effectively shifts future losses from the uninsured depositors to taxpayers. Such banks will struggle to make money as 0% deposits are replaced by Federal Reserve loans at 5% or higher.

This means that further interest rate rise will risk making the banking system weaker and increasing losses for the Federal Reserve. As I discuss below, the Federal Reserve also has this same problem: negative net asset value. Although the Fed does not face forced repayment of deposits, the Fed does pay more on deposits than they earn on assets. Thus they may want to put some limit on how much taxpayer money they lose.

After the Fed's most recent meeting, their published projections show that they still expect to raise rates another .25-.50%. This would still not bring short term interest rates above the consumer price index inflation rate as measured over the last 12 months. Of course, recent history shows they are very poor at predicting what they will do in the future. Before we move on, let's consider the implications of the 2 choices they face.

They can continue raising interest rates to bring down inflation. In order for this to work, they almost surely will need to cause a recession along with more bank failures. This would lead to significant job losses leading up to the presidential election. Or, they can stop raising rates (or even cut them), to try to reduce damage to the banks and the economy. In this case, inflation is unlikely to return to their 2% target anytime soon. It might drift down to 3% over a few years. Or it might not. If they keep the labor market strong, workers will seek compensation for inflation to try to regain their standard of living. This would tend to keep inflation high.

The Federal Reserve Bank Leads in Losses

The Federal Reserve is now paying a higher rate out to banks on their reserve deposits (4.9%) at the Fed than the Fed is earning on its portfolio of securities $(2.1\%^2)$. This has never happened before. In fact, prior to the 2008 financial crisis the Fed paid no interest on reserves as it was able to control interest rates indirectly via the supply of such reserves. Historically the Fed has always generated positive interest earnings to fund its operations and this has underpinned its independence from the political branches of government. In 2021 the Federal Reserve remitted \$109 billion of such excess earnings to the Treasury. As of the 4^{th} quarter of 2022, they

¹ This is prohibited by law so it may be a short lived fix.

² This is the average rate earned on the portfolio in 2022.

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are losing money even under their own custom accounting rules. They are no longer remitting funds to Treasury. Assuming they don't raise rates any further, I estimate the Fed's interest costs will exceed its interest income by \$136 billion in 2023.

The implication here is that they now face a budget constraint that they've put in place (without realizing it?) when they turned all central bank reserves into interest paying government liabilities and converted a large part of the government's fixed rate debt into floating rate debt. At this point they are in a situation not unlike that of the savings and loan industry back in the 1980's – they have a large portfolio of assets paying a fixed rate which is lower than the floating rate they are paying on their liabilities (to the banks). In the private sector that eventually means bankruptcy. According to the Wall Street Journal, roughly 3,000 banks and savings & loans failed or were bailed out from 1980 to 1994. The higher the Fed raises interest rates, the more money the Fed will lose.³

Like Silicon Valley bank, the Federal Reserve Bank itself now also has negative net assets on a market value basis. As of 12/31/22 its financial statements show that liabilities exceed the market value of their assets by more than \$1,080 billion. In 2022 the rise in interest rates caused unrealized losses in the value of their securities of \$1,208 billion. These are staggeringly large losses. Fortunately condition 2 above does not apply to them – depositors cannot lose their money. In any case, the Fed controls the amount of deposits it has – not the depositors. I believe that the Fed's massive losses will become more widely known this year and that this may lead to politically imposed interest rates. Of course, this could easily take years to play out.

The Economics (and Politics) Behind Financial Upheavals

If you think about the big picture, spending on credit is only ever temporarily free. In the end, someone must always forgo consumption of resources to compensate for consumption in excess of income. We saw this in the aftermath of the mortgage fueled spending boom of 2005 to 2008. The cost of that spree was paid for by depressed interest payments to investors over many years. In this context we can interpret the reduction in inflation adjusted incomes this country is experiencing and the losses in the banking sector as the savings needed to balance our consumption accounts for the pandemic costs.

Now let's consider the interaction of politics and the U.S. economy going forward. Given that most politicians are lawyers and untrained in finance and economics, combined with their typically short term horizon of

³ Technically what they are doing is prohibited by the constitution of the U.S. as only congress is supposed to be able to authorize spending of taxpayer money.

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the election cycle, we have reached a point where borrowing to spend ever more is baked into the cake. It's hard to predict how long this can last, but if you actually look at the projected deficits and understand how debt works, it's clear the U.S. will eventually pay the price via a large reduction in living standards. There are 3 levers the government can adjust when the day of reckoning arrives:

- 1. They can cut a large chunk of spending this would most likely require cutting Medicare and Social Security since that's where most of the money will be going out.
- 2. They can raise taxes by a huge amount. Unfortunately this probably won't work as the resulting economic contraction would probably offset a large part of the tax increase.
- 3. They can create money via the Federal Reserve, and lower interest rates to 0 on all government liabilities. The result would be a large inflation surge that will effectively wipe out a large part of private sector savings.

All of these choices can lower living standards sufficiently to pay for the past, but the third has the benefit of spreading the pain to foreigners who lent us the money we spent (China and Japan). I think they'll need to use all three by the time this is a short term problem, but the third is by far the easiest choice for politicians to make. And it has the added benefit that most voters won't even know who is responsible as our leaders will blame it on someone else.

Don't worry just yet. Because our currency is central to the world financial system, it will probably be many years before the U.S. faces those choices. Now, on to more immediate concerns.

Banking Failures Impact on Income Securities Markets

Regulators' takeover of Silicon Valley Bank and Signature Bank wiped out the claims of their bondholders. These bonds were rated investment grade and widely held – including in funds within our Long Term Income portfolio. I estimate the credit losses to the funds we owned at 1.5% of net asset values. Overall that impacted the portfolio by just .5%. One week later, Swiss regulators imposed losses on a class of bonds at Credit Suisse Bank when they forced its sale to United Bank of Switzerland. These bonds were also in the same funds. The estimated losses to the funds were 3.6% which came to 1.3% of the portfolio.

This action by Switzerland was a huge surprise to investors in the class of bonds known as Tier 1 bonds or contingent convertible bonds. That is because the bank had positive net value (unlike the two U.S. banks) and the shareholders were not forced to take losses before wiping out the bond holders. Thus these bank bonds suddenly became riskier than stock. This led to a huge selloff of all European Tier 1 bank bonds as they were repriced

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to provide higher *future* returns equivalent to equity. Regulators in the Eurozone, the United Kingdom and other jurisdictions that have such bonds rushed to reassure investors that they would never wipe out bonds before equity in their jurisdictions, but the damage is done. It seems unlikely banks will ever be able to issue such bonds at low enough yields in the future. This should lead to permanently higher credit costs in Europe and thus slower economic growth.

This repricing of Tier 1 bonds had a much larger impact on our investment grade holdings in the Long Term Income portfolio than the actual credit losses described above. From March 8th to March 20th the portfolio value declined by 7.86%. Forward looking yields are now quite high. I expect that, as things calm down, buyers will return to capture these higher yields and reverse a substantial part of this decline (but probably not all of it). In fact, thru March 31st the portfolio has gained back 3.56% of the loss.

Investing in 2023 – Assessing the Possibilities

From the day before Silicon Valley Bank's failure to March 27th high yield spreads rose from 4.27% to 5.03%. While this does constitute a tightening of credit conditions, it does not point to an impending recession. So far, the impact of the Fed's interest rate increases are only causing problems for the financial sector and the commercial real estate sector (primarily office buildings). Without a recession, inflation is likely to stay well above the 2% target level. In short, it looks like the failure of a few banks may not be enough to achieve the Federal Reserve's stated goal.

Because rents will most likely stop pushing up inflation beyond June, we should see at least some decline in inflation readings this year. Other service costs are still rising; therefore we should see continued wage pressure as people try to regain their standard of living. If wages rise enough, they will eventually feed into further rises in rents and other costs.

As mentioned previously, the Federal Reserve faces a dilemma. Interest rate rises generally have little direct impact on inflation absent a recession. The Fed can continue trying to reduce inflation by raising rates and keeping them high so as to cause a recession (and more bank failures). Or they can stop raising rates and let inflation take its natural course, hoping it declines on its own and that few additional banks fail. They could also completely surrender to inflation by cutting rates, but this seems unlikely until after a recession has begun.

We've already seen some decline in Treasury bond yield as a result of the distress in the banking sector. If we do get a recession, these could decline further. That should boost the market prices of investment grade bonds. Muni bonds should perform well in this scenario.

If no recession materializes, inflation will continue to exceed the 2% target and interest rates will remain in their current range. This scenario

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favors investments in our real estate portfolio (apartments and self-storage) and also high yield income securities.

Either of these can easily happen though I think the latter is slightly more likely. As always with such uncertainty, it makes sense not to bet everything on one particular scenario.

Short Term Income Portfolio Strategy and Performance

Berkeley Investment Advisors uses several different strategy portfolios to manage client assets. The Short Term Income portfolio, which we focus on in this, its anniversary quarter, is a fixed income portfolio that holds short to intermediate term rate maturity loans and bonds. Typically shorter maturity bonds offer lower interest rates (yields) than longer maturity bonds and are less sensitive to changes in interest rates. This category includes securities with floating interest rates that can reset periodically depending on market conditions. For example the rate paid could be set based on Banks' "Prime Rate" or the 3-month London Interbank Offer Rate (3-month LIBOR). These rates, in turn, change as the Federal Reserve Bank raises (or lowers) it's "Fed Funds Rate".

The interest rate risk sensitivity of the portfolio is measured by its duration. Typically a short term bond fund strategy would own bonds with durations below 3. If we held a bond with duration of 3 when rates went up 1%, we would expect the bond's price to decline by 3%. Currently duration is 1.2 for this portfolio but it had a duration of 1.7 one year back.

There is also credit risk in our portfolio –borrowers may default and not pay all that is due. High yield bonds have a higher probability of default than investment grade rated bonds, but these lower rated bonds compensate by paying higher interest rates. It is this spread compensation that fluctuates depending on the market's current risk pricing attitude (mood). This pricing risk is related to equity market risk and it is also correlated with the performance of the economy. We manage individual credit risk by diversifying across a large number of issuers. This ensures that the extra premiums earned will not get wiped out by a few companies defaulting. Our strategy is to accept credit risks to earn the extra returns associated with those risks.

The portfolio also earns incremental yield by holding closed-end funds (CEFs). For a detailed explanation of the advantages of closed-end funds see the March 2017 newsletter. In holding these securities we must endure more price volatility in down markets as retail investors tend to want to sell more at lows. Current market conditions are providing about 1.0% higher yield on our portfolio than if we held the underlying bonds directly.

The portfolio is diversified across virtually all sectors of the fixed income market. The best comparison index is the "Barclays U.S. 1-5 year Government /Credit Float Adjusted Bond Index" as represented by the

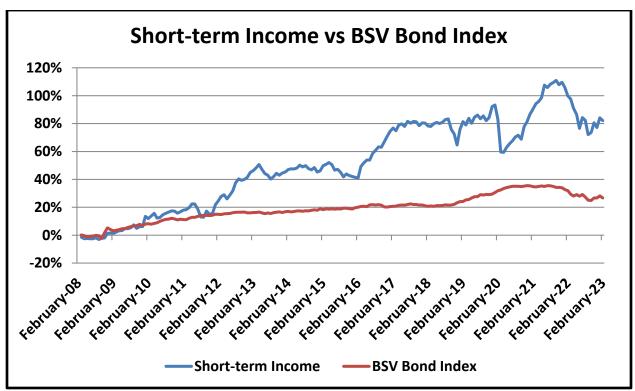
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Vanguard Short-Term Bond exchange traded fund (ticker BSV). This is meant to represent the total short maturity U.S. bond market. It is not a perfect comparison to our strategy but there is nothing closer that has been in existence for the life of our portfolio.

Some clients have had money invested in this portfolio since it was created in February 2008. The graph and the table on the next page show total returns including price and interest payments in comparison to the bond index mentioned above as implemented in the exchange traded fund (ticker BSV). Our portfolio returns calculated here are based on a particular client's account and have been reduced by annual fees of 1.25% which would apply to new accounts above \$500,000 but below \$1 million.

The graph below shows increasing volatility for the strategy's returns since the Pandemic started. Although this strategy has had losses in 5 out of 15 years, generally there is lower risk of principal loss over a year's time than in other strategies - such as stocks or long term bonds.

The last year has been highly unusual in that short term interest rates rose a very large amount in a relatively short time. This combination led to much higher interest rate sensitivity for this portfolio than typical environments. The 1 year T-bill yield increased by 3.8% over the period. The floating rates loans in this portfolio adjust more slowly than these rapid fire increases from the Fed. Thus market values declined significantly as rates rose.



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		Returns by Year		
	·	Short term	BSV Bond	•
Year	Year Ended	Income	Index	Difference
1	2/28/2009	1.4%	3.1%	-1.7%
2	2/28/2010	10.3%	5.0%	5.4%
3	2/28/2011	5.5%	2.7%	2.8%
4	2/29/2012	5.5%	3.4%	2.1%
5	2/28/2013	17.5%	1.1%	16.3%
6	2/28/2014	0.5%	0.6%	-0.2%
7	2/28/2015	2.0%	1.2%	0.8%
8	2/29/2016	-6.0%	1.5%	-7.4%
9	2/28/2017	25.5%	0.6%	24.9%
10	2/28/2018	0.9%	-0.1%	1.0%
11	2/28/2019	1.7%	2.9%	-1.1%
12	2/29/2020	0.9%	6.2%	-5.3%
13	2/28/2021	3.9%	2.3%	1.6%
14	2/28/2022	5.1%	-2.2%	7.3%
15	2/28/2023	-8.9%	-4.0%	-4.9%
	Compounded Total	82.1%	26.7%	55.4%

The table above breaks down the portfolio returns by year since inception. Over the last year, the strategy lost 8.9%, while the Vanguard Bond Index Fund lost 4.9%. The cumulative return for the strategy from 2/29/2008 to 2/28/2023 is 82.1%. Thus the annualized compounded rate of return since inception (15 years ago) has been 4.08%.

The loss over the past year is very disappointing. In addition to the very rapid rise in short term interest rates, high yield spreads also rose and spreads on the lowest rated loans increased dramatically. As mentioned earlier, these spreads usually rise as the stock market declines and recession risk rises. Thus low rated loan prices decline along with stocks. Compounding the down year for the underlying assets, heightened volatility caused closed end fund discounts to increase over the year for this portfolio.

It was a year where nothing worked and almost all investments were marked down in value. There is, however, reason for optimism in the coming year. The average discount on closed in funds in the portfolio is now over 11%. This is very high by historical standards. Therefore, the chance of further increases over the coming year is lower than normal. In addition, the current dividend yield of 8.9% is quite high. This will provide a significant return to compensate for further volatility. Finally, if the Fed does slow or stop its rate increases, the loans in the portfolio will have time to "catch up" to the rate rises. This should result in further dividend increases over time.

This year, I expect we will see the peak of interest rates. Because our allocation to Short Terms Income has been heavily influenced by the risk of

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higher rates, which have now been realized, later this year we will reduce our emphasis on this strategy by shifting investment allocations towards Long Term Income. This will allow us to lock in higher returns going forward.

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